

# Chapter 1

## Students' Views about Learning with Technologies: A Literature Review

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### **ABSTRACT**

*There is a paucity of recent, formal education research that listens directly to students' views of learning with technologies. Much of the research that has been conducted has tended to focus on evaluating students' current experiences within a specific course, or concerned with tangible issues such as frequency of computer use, access to computers and the Internet, and evaluations of technical skill levels. Available research has tended to use quantitative or mixed method approaches, with data collected through surveys using convenience samples, Likert scales and free response questions. These methods are sometimes supplemented with interviews and observations. To establish an understanding of existing research, and to provide a foundation for the chapters that follow, this chapter reviews a selection of studies published since 2005 that collected data directly from students. It is apparent from this chapter that there is room for more formal research that listens to students' views of learning with technologies.*

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## INTRODUCTION

Including technologies in teaching and learning requires changes to be brought about at multiple levels: at the level of pedagogy, curriculum, policy, infrastructure, organization and governance, at the local institution as well as at system levels. This literature review is concerned with peer-refereed research studies published since 2005 about learning with technologies that uses as primary data, the perspectives of school and university students. In this chapter, the shorthand nomenclature of the “student voice” is adopted to describe the literature that has been reviewed from the point of view of students’ perspectives about learning with technologies. The purpose of this review is to examine published literature since 2005 to:

- Identify recent research already undertaken in the field;
- Identify the research methods used to underpin existing published research;
- Identify any gaps in existing knowledge; and
- Reflect on the implications for future research that could be undertaken.

There is a small but growing body of literature about the importance of listening to the “student voice” in teaching and learning (cf Farrell, Danby, Leiminer, & Powell 2004; Flutter, 2006; Holdsworth, 2005; Jackson 2004; Oerlemans, K., Vidovich, & O’Neill, 2006; Whitehead & Clough, 2004), but comparatively less research has focused upon hearing students’ perspectives to learning with technologies. This lack of specific “student voices research” about learning with technologies (cf Oblinger & Oblinger, 2005) applies to primary, middle and secondary school students, students undertaking training, and to university students and their learning with technologies. A diverse range of technologies is now part of many students’ daily lives. Yet while policies and reports advocate the economic, social and cultural benefits

that technologies may play in students’ lives, it seems fewer efforts have been made to directly engage learners in dialogue about how they would like to see their classrooms and institutions change to enable meaningful learning with technologies. The focus of this literature review then, is on student voices in research published since 2005, about their views of learning with technologies.

## BACKGROUND

Many students currently attending schools in developed countries have lives imbued with technologies such as computers, the Internet, automatic teller machines, mobile phones, interactive video and online games. As these young people have been growing up, the importance of including technologies in learning has consistently been acknowledged in government and non-government reports around the world (cf Organisation for Economic Co-operation and Development (OECD) 2010; United Nations Information and Communication Technologies Taskforce 2003). Some large scale national approaches to fostering teaching and learning with technologies are being implemented. For example, in 2008, the Australian Government introduced the “Digital Education Revolution” policy which committed almost \$2 billion over four years to provide computer technologies through the “National Secondary School Computer Fund” to secondary school students in the school years 9 to 12. The aim of this initiative is to achieve a one to one computer to student ratio by 31 December 2011 (Australian Government, Department of Education, Employment and Workplace Relations (DEEWR) 2008). The “Digital Education Revolution” initiative coincided with the “global financial crisis”. The implementation of the “Digital Education Revolution” was consistent with OECD advice during that time such as the following: “Many countries face challenges regarding school buildings. Renovating the school infrastructure (e.g. integrating ICT

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